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WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION)
CIRA CENTRE, 12TH FLOOR
2929 ARCH STREET
PHILADELPHIA, PA 19104-2891

EXAMINER	
VAUGHN, GREGORY J	
ART UNIT	PAPER NUMBER
2178	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/643,031	PATCH ET AL.	
	Examiner	Art Unit	
	GREGORY J. VAUGHN	2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 21-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *10-12,14-18 and 21-25* is/are allowed.

6)☒ Claim(s) *1-3,6,8,9 and 26-28* is/are rejected.

7)☒ Claim(s) *4,5 and 7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/18/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Application Background

1. This action is responsive to the amendment filed on 3/26/2008.

2. Applicant has amended claims 1, 5, 6, 10, 11, 15, 21 and 22, and canceled claim 13. Claims 19 and 20 were previously canceled.

3. Claims 1-12, 14-18 and 21-28 are pending in the case; claims 1, 10, 18, 21 and 26 are independent claims.

4. The examiner's rejection of claim 13, rejected under 35 USC 102, as recited in the previous office action (dated 12/28/2007) is withdrawn in view of the canceled claims.

5. The examiner's rejection of claims 4, 5, 7 10-18 and 21-25, rejected under 35 USC 102, as recited in the previous office action (dated 12/28/2007) are withdrawn in view of amended claims and applicant's remarks.

6. Acknowledgment is made to applicant's submission of an Information Disclosure Statement, filed on 1/18/2008.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> "*A person shall be entitled to a patent unless –*
>
> *(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*"

8. Claims 26-28 remain rejected under 35 U.S.C. 102(b) as being anticipated by Elmore et al., US Patent Publication 2006/0059107, filed 3/30/2001, published 3/16/2006 (hereinafter Elmore).

9. **Regarding independent claim 26**, Elmore discloses validating markup language text. Elmore discloses his invention as an e-business online commerce solution (see paragraph 4), where the online solution is provided using markup language (see paragraphs 38, 39, 66, 69, 103, 104 106 etc. for examples of how the invention is implemented using HTML and XML). Elmore uses standard markup language solutions. Elmore recites: "*These portals are eBusiness sites with interfaces and process flows dedicated to particular customer group. They use JavaServer Pages (JSP) technology--standard HTML files*" (paragraph 38) or "*Administrator 111 is a Java-based tool that uses XML files to map object attributes to the database*" (paragraph 39). As is well known in the art, markup language files are structured documents, where the structure is created by delimiting content by the

markup. Elmore discloses a plurality of elements, related to each other in a tree representation, where there exist roots and subtrees of elements in figure 12.

Markup language documents are processed by parsing the document elements in an order prescribed by the markup. Elmore discloses validating the document elements as the parser encounters each element by using a validation table and a validation delegate. Elmore recites: "*The server then parses through the data and looks in the TRANS_MAP table to determine if there is a transition policy associated with the "from" and "task" directives. If a transition policy does not exist, the user is directed to the page set in the "to" directive. If a transition policy exists, the policy is invoked and the server executes the navigation logic defined in the policy.*" (paragraph 115). As described above, Elmore discloses a validation delegate that corresponds to the document element (in this example the "*transition policy*" is the delegate). Furthermore, this passage from Elmore indicates that multiple elements (first, second and so on) will be encountered and validated as indicated by the markup associated with each element.

Elmore discloses the use of validation delegates. Elmore recites: "*Integration Layer 102, through which Smart Components 104 access external systems 110. The interconnect service within this layer uses communications messaging interfaces (CMIs) 105 and adapters 106/107 to transport messages. The CMIs are pre-defined interfaces to common services (e.g. rating, address validation, service reservation, etc.) needed to complete client requests for customer, pre-order, order, and post order transactions. The EAI Adapters 106 provide the flexibility to integrate with an*

EAI package 109. These adapters are configurable software interfaces for different EAI packages, such as Vitria BusinessWare or BEA eLink. Other adapters are also available" (paragraph 37).

Elmore discloses a connection with external systems that allow the mapping information to be modified to cause the same validation engine, without modification, to modify the validation delegates. Elmore recites: "*The interconnect service EJB provides an interface that the activity smart components use to access external systems 110. Messages that contain information for external systems 110 are sent from the eBusiness support system through a particular type of communications messaging interface (CMI) 105. Examples of these CMI types include credit card validation, address validation, and service reservation, etc*" (paragraph 65).

10. **Regarding dependent claim 27**, Elmore discloses the validation process satisfies non-syntactic conditions. Elmore discloses validation in the form of lookup tables that are outside of schema. These lookup tables provide validation beyond the validation normally associated with the markup language embodiment of the claimed invention. The syntax rules for markup language varies (HTML is less restrictive, while XML is more restrictive), however a valid markup language document may still be invalid (applicant's originally filed specification at paragraph 40 provides an example in the form of a street address). Elmore discloses this kind of validation. See paragraphs 37 and 65, where Elmore discloses validation of street address.

11. **Regarding dependent claim 28**, Elmore discloses traversing a structured document as described above. Elmore discloses the traversing as recursive in paragraph 633. Elmore discloses a plurality of elements, related to each other in a tree representation, where there exist roots and subtrees of elements in figure 12.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> *(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

13. Claims 1-3, 6, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elmore.

14. **Regarding independent claim 1**, Elmore discloses validating markup language text. Elmore discloses his invention as an e-business online commerce solution (see paragraph 4), where the online solution is provided using markup language (see paragraphs 38, 39, 66, 69, 103, 104 106 etc. for examples of how the invention is implemented using HTML and XML). Elmore discloses validating the markup text. Elmore recites: "*The interconnect service EJB provides an interface that the activity*

smart components use to access external systems 110. Messages that contain information for external systems 110 are sent from the eBusiness support system through a particular type of communications messaging interface (CMI) 105. Examples of these CMI types include credit card validation, address validation, and service reservation, etc" (paragraph 65).

Markup language documents are processed by parsing the document elements in an order prescribed by the markup. Elmore discloses validating the document elements as the parser encounters each element by using a validation table and a validation delegate. Elmore recites: "*The server then parses through the data and looks in the TRANS_MAP table to determine if there is a transition policy associated with the "from" and "task" directives. If a transition policy does not exist, the user is directed to the page set in the "to" directive. If a transition policy exists, the policy is invoked and the server executes the navigation logic defined in the policy.*" (paragraph 115).

Elmore discloses parsing, as described above. Parsing is "*parsing (more formally: syntactic analysis) is the process of analyzing a sequence of tokens to determine grammatical structure with respect to a given (more or less) formal grammar. A parser is thus one of the components in an interpreter or compiler, where it captures the implied hierarchy of the input text and transforms it into a form suitable for further processing (often some kind of parse tree, abstract syntax tree or other hierarchical structure)*" (see "*Parsing*" by Wikipedia, page 1, first paragraph). The parser creates a tree that represents the source. Elmore discloses traversing a

tree in paragraphs 633 and 1081. Tree traversal is "*the process of visiting each node in a tree data structure, exactly once, in a systematic way. Such traversals are classified by the order in which the nodes are visited*" (see "*Tree Traversal*" by Wikipedia, page 1, first paragraph). This article describes the well known tree traversal order methods: pre-order (also called depth-first), in-order, post-order and level-order (also called breadth-first) (see pages 1 and 2 of "*Tree Traversal*"). This article also describes the uses and benefits of the various tree traversal methods – starting on page 5, and on page 6, indicating that the pre-order (depth-first) traversal method is useful to copy a tree and to obtain a prefix expression. An advantage of the depth-first traversal is "*space complexity of DFS (depth-first search) is much lower than BFS (breadth-first search). It also lends itself much better to heuristic methods of choosing a likely-looking branch*" (see "*Depth-first search*" by Wikipedia, page 1, third paragraph). Elmore fails to disclose a depth-first traversal order, however it would have been obvious to one of ordinary skill in the art would, at the time the invention was made to choose to use a depth-first traversal order with the parsing and tree traversing of Elmore because depth-first traversal provides benefits including lower space complexity and a better heuristic methods of choosing the best branch.

As described above, Elmore discloses a validation delegate that corresponds to the document element (in this example the "*transition policy*" is the delegate). Furthermore, this passage from Elmore indicates that multiple elements (first,

second and so on) will be encountered and validated as indicated by the markup associated with each element.

Elmore discloses the use of validation delegates. Elmore recites: "*Integration Layer 102, through which Smart Components 104 access external systems 110. The interconnect service within this layer uses communications messaging interfaces (CMIs) 105 and adapters 106/107 to transport messages. The CMIs are pre-defined interfaces to common services (e.g. rating, address validation, service reservation, etc.) needed to complete client requests for customer, pre-order, order, and post order transactions. The EAI Adapters 106 provide the flexibility to integrate with an EAI package 109. These adapters are configurable software interfaces for different EAI packages, such as Vitria BusinessWare or BEA eLink. Other adapters are also available*" (paragraph 37).

Elmore discloses the validation as both local (client) and global (server) validation in paragraphs 125 and 126 as Javascript libraries residing on the client or the server. Elmore recites: "*Client-side validation should be used in conjunction with server-side validation. The former is not a replacement for the later. Although client-side validation may enable a better user experience by performing validation on the fly, it exposes the application to security risks from users who could bypass the JavaScript and submit erroneous data to the database*" (paragraph 126).

Elmore discloses validation tables in the form of libraries. Elmore recites: "*JavaScript Libraries. The JavaScript libraries are used for client-side validation. js_validation. js provides JavaScript methods for validating data to submit to the*

server. For example, it is used to verify that the required fields are filled in by the user. Client-side validation should be used in conjunction with server-side validation. The former is not a replacement for the later. Although client-side validation may enable a better user experience by performing validation on the fly, it exposes the application to security risks from users who could bypass the JavaScript and submit erroneous data to the database. The JavaScript libraries are also used for input and form submit manipulation. js_common.js provides javaScript methods for setting request parameters and passing variables and values to the server" (paragraphs 125-127).

Elmore discloses validation in the form of lookup tables that are outside of schema. These lookup tables provide validation beyond the validation normally associated with the markup language embodiment of the claimed invention. The syntax rules for markup language varies (HTML is less restrictive, while XML is more restrictive), however a valid markup language document may still be invalid (applicant's originally filed specification at paragraph 40 provides an example in the form of a street address). Elmore discloses this kind of validation. See paragraphs 37 and 65, where Elmore discloses validation of street address.

Elmore discloses validating text by using validation delegates and validation tables, as described above. Elmore discloses a plurality of elements, related to each other in a tree representation, where there exist roots and subtrees of elements in figure 12.

15. **Regarding dependent claims 2, 3, 6 and 9**, Elmore discloses determining if a validation table contains no validation delegates (claim 2), identifying and executing a third validation delegate (claim 3), making a validation decision (claim 6) and validating text (claim 9). Elmore discloses Business Rule Adapters in Figure 1 at reference sign 107. Business rule adapters specify the determining, identifying, decision-making and validating required for the specific business problem being solved.

16. **Regarding dependent claim 8**, Elmore discloses the delegates as interpretable code – see the code listing after paragraph 64.

Allowable Subject Matter

17. Claims 4, 5 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. Claims 10-12, 14-17, 18 and 21-25 are allowed.

Response to Arguments

19. Applicant's arguments with respect to claims 1-12, 14-18 and 21-28 have been considered but are moot in view of the new ground(s) of rejection, as stated above. Applicant's arguments with respect to claims 4, 5, 7, 10-18 and 21-25 have been considered but are also moot in view of the allowance of the subject matter claimed.

20. **Regarding independent claim 1**, applicants arguments are directed toward the amended subject matter added by the latest amendment. Applicant is directed to the new rejection of claim 1, as stated above. As explained above a depth-first traversal order would have been obvious, and the local and global validation is discloses by Elmore.

21. **Regarding claims 2-9**, applicant argues that Elmore fails to disclose the flag aspect claimed in Claim 7. A flag is further claimed in claims 4 and 18. However this argument is rendered moot in light of the allowance of claims 4, 5, 7 and 18.

22. **Regarding claim 26**, applicant argues that Elmore fails to disclose content that is delimited by markup (page 13, fourth paragraph of the response filed 3/26/2008). Elmore discloses the use of markup languages, as described above.

Conclusion

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory J. Vaughn whose telephone number is (571) 272-4131. The examiner can normally be reached Monday to Friday from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen S. Hong can be reached at (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Stephen S. Hong/
Supervisory Patent Examiner, Art Unit 2178

/Gregory J. Vaughn/
Patent Examiner
June 5 2008